

REMARKS

Applicants have carefully reviewed this Application in light of the Final Office Action mailed July 14, 2003 (Paper No. 10) and the Advisory Action mailed December 15, 2003. Claims 7 and 27-32 were previously cancelled without prejudice or disclaimer. Claims 1-6 and 8-26 are pending in this Application and Claim 33 has been added. Based on the Examiner's remarks in the Advisory Action, Applicants believe that Claims 1-6 and 8-26 stand rejected under 35 U.S.C. § 103(a). Applicants have amended Claims 1, 3 and 17 to further define various features of Applicants' invention. Applicants respectfully request reconsideration and favorable action in this case.

Rejection under 35 U.S.C. § 103

Claims 1-6, 8-14 and 16-26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,335,240 issued to Kim et al. ("Kim") in view of U.S. Patent Publication No. US 2002/0106846 filed by Sean M. Seutter et al. ("Seutter").

Claim 15 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim and Seutter as applied to the claims above and further in view of U.S. Patent No. 5,616,177 issued to Norihide Yamada ("Yamada").

Kim discloses a method for forming a capacitor for a semiconductor device that uses a three dimensional storage node with a silicon containing conductive layer to increase capacitance. (Col. 2, lines 15-20).

Seutter discloses a method of forming a tantalum-nitride layer film for use in integrated circuit fabrication. (Page 1, Paragraph [009]). After forming one or more layers, Seutter further discloses plasma annealing a tantalum-nitride film at a temperature which does not melt, sublime, or decompose the tantalum nitride film. (Page 4, Paragraph [0055] and Page 5, Paragraph [0061]).

Claims 1 and 17, as amended, recite a method comprising the step of "varying the frequency of the annealing to control intrinsic stress of the deposited film."

Applicants respectfully submit that the cited references fail to disclose every element of Applicants' invention. Further, there is no motivation, suggestion or teaching to combine Kim and Seutter. For instance, neither Kim nor Seutter teach, disclose or suggest a method of fabricating a conformal film on a substrate comprising "varying the frequency of the annealing to control intrinsic stress of the deposited film," as recited by amended Claim 1.

Additionally, neither Kim nor Seutter teach, disclose or suggest a method for fabricating a thin AlO_x film on a substrate comprising “varying the frequency of the annealing to control intrinsic stress of the deposited film,” as recited by amended Claim 17.

The Examiner stated that Kim discloses that the frequency of the anneals controls the intrinsic film stress. (Paper. No. 10, Page 5). The excerpt from Kim cited by the Examiner, however, only discloses that a layer deposited using ALD has high conformity. (Col. 4, Lines 29-33). The cited references fail to disclose the recited limitations and, therefore, cannot render obvious Claims 1 and 17.

Given that Claims 2-6 and 8-16 depend from Claim 1 and Claims 18-26 and 33 depend from Claim 17, Applicants respectfully submit that Claims 2-6, 8-16, 18-26 and 33 are allowable. As such, Applicants respectfully request that the Examiner withdraw the rejections and allow Claims 1-6, 8-26 and 33.

CONCLUSION

Applicants appreciate the Examiner's careful review of the application. Applicants have now made an earnest effort to place this case in condition for allowance in light of the amendments and remarks set forth above. For the foregoing reasons, Applicants respectfully request reconsideration of the rejections and full allowance of Claims 1-6, 8-26 and 33 as amended.

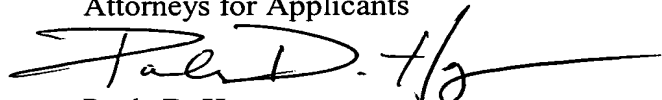
Applicants enclose a Petition for Extension of Time (One Month) and a check in the amount of \$110.00 for the filing fee and do not believe that any additional fee is due, however, the Commissioner is hereby authorized to charge any additional fees or credit any overpayments to Deposit Account No. 50-2148 of Baker Botts L.L.P.

Applicants also enclose a check in the amount of \$770.00 to cover the filing fee for the Request for Continued Examination and do not believe any additional fee is due, however, the Commissioner is hereby authorized to charge any additional fees or credit any overpayments to Deposit Account No. 50-2148 of Baker Botts L.L.P.

If there are any matters concerning this Application that may be cleared up in a telephone conversation, please contact Applicants' attorney at 512.322.2581.

Respectfully submitted,

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Enclosures:

1. Request for Continued Examination (RCE) Transmittal Form and check in the amount of \$770.00 for the RCE filing fee
2. A Petition for Extension of Time (One Month) and a check in the amount of \$110.00 for the filing fee.